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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,150	07/16/2003	Matthew Louis Courcy	NSC-P05579	1923
7590 06/06/2005 WAGNER, MURABITO & HAO LLP Third Floor Two North Market Street San Jose, CA 95113			EXAMINER WILLIAMS, HOWARD L	
			ART UNIT 2819	PAPER NUMBER

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/622,150

Applicant(s)

COURCY, MATTHEW LOUIS

Examiner

Howard L. Williams

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-9, 11-15, 17-21 and 23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 11-15, 17-21 and 23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

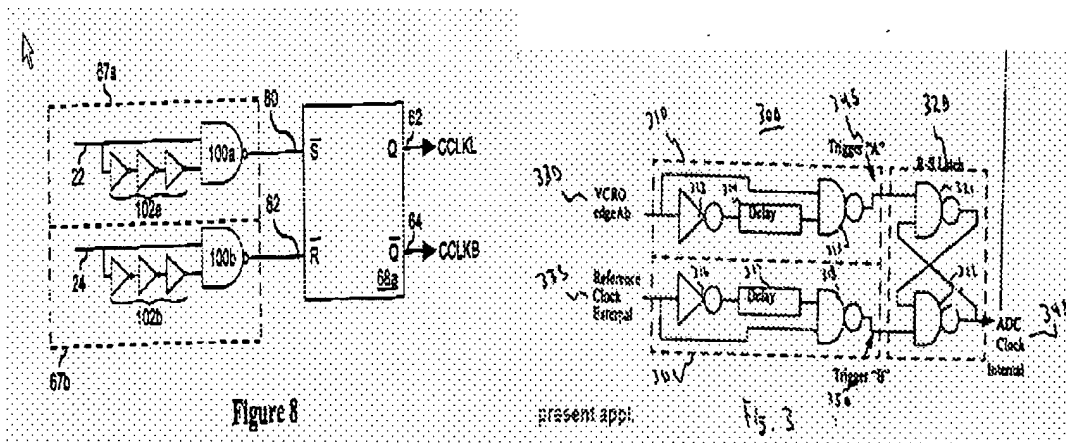
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 13-15 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by Ma (US 6320437). The “clock pulse generator” (30; fig. 2) provides edge detection that receives an external clock signal at input 33 and provides an output to latch (10;fig. 2), which is an S-R flip-flop. The clock pulse generator includes a NAND gate (N1) and delay elements to supply the second NAND gate input.

Claims 1-3, 5, 13-15 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by U.S. P.A.P. 20020017936 A1 to Stark et al. Stark in figure 8 discloses: edge detectors (67a & 67b) and latch/S-R flip flop (66a).



Stark's figure 8 (on the left above) has the same configuration as figure 3 of the present application since the inverters 102a and 102b provide delay circuits. The inputs (22, 24) to the Stark edge detectors are complementary clock signals and 180 degrees out of phase. In the terms of signal period and duty cycle would be one-half clock period delayed phase.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-9, 11, 12, 18-21, and 23 are rejected under 35 U.S.C. 103(a) as unpatentable over Ma (US 6320437) in view of Huynh (US 20030107432 A1) or U.S. P.A.P. 20020017936 A1 to Stark et al. in view of Huynh (US 20030107432 A1). Ma discloses the clock duty cycle regulator and mentions myriad uses for the improved clock signal but does not explicitly mention an analog-to-digital converter. Huynh discloses a switched capacitor circuit that is used in an analog-to-digital converter and desires to provide an output each clock cycle and recognizes the need for a 50% duty cycle clock (§ 0030). The clock duty cycle regulator of Ma would have been an obvious choice to provide a 50% duty cycle clock signal because use of the a cleanly squared clock signal would provide a suitable clock to enable Huynh to achieve the output once each cycle thus increasing the circuit through-put.

Stark et al., like Ma, does not mention ADC systems in particular but discloses two edge detectors side by side to the S input and R input, respectively, of an S-R flip-flop or latch, similar to applicants' embodiment. The clock duty cycle regulator of Stark et al. would have been an obvious choice to provide a 50% duty cycle clock signal because use of the a cleanly squared clock signal would provide a suitable clock to enable Huynh to achieve the output once each cycle thus increasing the circuit through-put.

The remarks filed 18 May 2005 have been fully considered but are not found persuasive.

Ma (US 6320437)

The current set of remarks again urges that Ma is not applicable raising points on “the reset signal does not comprise a second input but is merely a delayed version of the output of the clock output unit” (page 9 of remarks). Applicants’ claims do not appear to recite a second input or any particular input to generate the reset; so this argument against Ma does not hold. The “conditioning circuit” recited in the claims is tied back to the the single recitation of an edge detection circuit, i.e. for the use by the edge detection circuit”, rather than as its own circuit to generate a reset.

Stark (U.S. P.A.P. 20020017936)

The remarks urge that Stark does not disclose the conditioned signal (page 11). Returning to the present claims (claim 1 for example) the conditioning circuit is not recited as providing a reset signal to the latch. Rather it is recited as “for use by the edge detection circuit” and thus one can’t really tell if it is its own circuit or just part of the edge detection. For that matter it seems that applicant may not really show the conditioning circuit, figure 3 seems to show two edge detection circuits and a latch. Stark discloses separate clock inputs the CLKL on line 22 and CLKB on line 24 which are out of phase (i.e. half of the period) with each other each applied to an edge detection circuit.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Application/Control Number: 10/622,150
Your Reference: NSC-P05579
Art Unit: 2819

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Any inquiry concerning this communication should be directed to Howard L. Williams at telephone number 571.272.1815. The Patent and Trademark Office has a new central facsimile number for application specific correspondence intended for entry, it is 703-872-9306.

5/31/05
Voice 571.272.1815


Howard L. Williams
Primary Examiner
Art Unit 2819